

What is claimed is:

1. An immersion lithography system comprising:
an illumination source;
a workpiece for having an image pattern projected thereon;
5 an optical unit including a final-stage optical element opposite said workpiece for having said image pattern projected thereon by light from said illumination source;
a fluid-supplying device for providing a fluid between and contacting said optical element and said workpiece;
a fluid control device for providing a high-pressure gas and forming therewith a
10 curtain for preventing said fluid from entering a specified area; and
a water removal system serving to remove absorbed water from said optical element.
2. The immersion lithography system of claim 1 wherein said water removal
15 system includes a material with affinity to water.
3. The immersion lithography system of claim 1 wherein said water removal system includes a heat generating system.
- 20 4. The immersion lithography system of claim 1 wherein said water removal system includes a vacuum system.
5. A method of operating an immersion lithograph system, said method comprising the steps of:
25 placing a projection optical element opposite a workpiece;
supplying fluid between and contacting said projection optical element and said workpiece while projecting an image on said workpiece through said projection optical element; and
removing said liquid optical element from said fluid and thereafter removing
30 absorbed water from said optical element.